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R.W. SPERRY, M. GLICKSTEIN, and H. ARORA. Div. Biol. California Inst. of Technology. Delayed response performance of split-brain monkeys with unilateral prefrontal ablation and optic tract section.

Bilateral (but not unilateral) prefrontal lesions markedly impair delayed response performance of monkeys. Moreover, in bilateral operates this deficit is classically accompanied by hyperactivity and distractability. Seven Rhesus monkeys are being tested on the delayed response following seriatim ablation of one optic tract, one prefrontal area, and corpus callosum along with anterior and hippocampal commissures. Of three cases completed to date, two with prefrontal lesions ipsilateral to the cut optic tract were relatively unaffected by the commissurotomy. One case with prefrontal ablation contralateral to the cut tract showed marked impairment of delayed response performance after the commissurotomy. Moreover the latter deficit appeared to be unaccompanied by the classical frontal symptoms of hypermotility and distractability found after bilateral ablations.

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